CLAIMS

1. A compound of formula (I) or a pharmaceutically acceptable salt or solvate thereof:

$$R^{4}$$
 D^{2}
 D^{1}
 D^{3}
 D^{4}
 D^{6}
 D^{1}
 D^{1}
 D^{3}
 D^{4}
 D^{1}
 D^{1}
 D^{2}
 D^{3}
 D^{4}
 D^{1}
 D^{1}
 D^{2}
 D^{3}
 D^{4}
 D^{1}
 D^{1}
 D^{2}
 D^{3}
 D^{4}
 D^{1}
 D^{2}
 D^{3}
 D^{4}
 D^{5}
 D^{5

wherein

A represents a group of formula (a):

$$R^{14}$$
 R^{14}
 R^{14}
 R^{12}
 R^{12}
 R^{12}
 R^{12}
 R^{12}
 R^{13}
 R^{12}
 R^{12}
 R^{13}
 R^{14}
 R^{15}
 R^{15}

Z represents -O-, -N(- R^{Z})-, -S-, or -C(=O)- wherein R^{Z} represents a hydrogen atom or unsubstituted C1-4 alkyl,

 D^1 , D^2 , D^3 , D^4 , X, E, G, J, L, and M, which may be the same or different, represent C or N,

 ${\sf R}^1$ to ${\sf R}^6$ and ${\sf R}^{10}$ to ${\sf R}^{14},$ which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (4) cyano group;
- (5) nitro group;
- (6) C1-6 alkyl;
- (7) C2-6 alkenyl;
- (8) C2-6 alkynyl;

- (9) C1-6 alkoxy;
- (10) C1-6 alkylthio;

wherein (6) C1-6 alkyl, (7) C2-6 alkenyl, (8) C2-6 alkynyl, (9) C1-6 alkoxy, and (10) C1-6 alkylthio are optionally substituted by

- (I) hydroxyl,
- (II) a halogen atom,
- (III) C1-4 alkoxy,
- (IV) an oxygen atom,

(V) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group wherein the carbocyclic or heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, a halogen atom, or a five- or six-membered carbocyclic or heterocyclic group, and the C1-4 alkyl group is optionally substituted by hydroxyl or phenyl,

(VI) amino group wherein one or two hydrogen atoms in the amino group are optionally substituted by C1-4 alkyl or a five- or six-membered carbocyclic or heterocyclic group, and the C1-4 alkyl group is optionally substituted by hydroxyl or C1-4 alkoxy,

 $\mbox{(VII) -NHCONHRVII wherein R^{VII} represents $$C1-4 alkyl,}$

 $(VIII) \ \ \text{-OCOR}^{VIII} \ \ \text{wherein} \ \ R^{VIII} \ \ \text{represents}$ C1-6 alkyl optionally substituted by amino, or

(IX) -NSO $_2R^{IX}$ wherein R^{IX} represents C1-4 alkyl;

- $(11) NR^aR^b;$
- (12) -CO-OR^c;
- (13) -CO-NR^dR^e;

wherein, in groups (11) to (13), R^a , R^b , R^c , R^d , and R^e , which may be the same or different, represent a hydrogen atom or C1-4 alkyl, and the C1-4 alkyl group is optionally substituted by

- (a) hydroxyl,
- (b) a halogen atom,

- (c) C1-4 alkoxy,
- (d) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom, or

(e) amino group wherein one or two hydrogen atoms in the amino group are optionally substituted by C1-4 alkyl, and

R^d and R^e together may combine with the carbon atoms to which they are attached represent a saturated three- to nine-membered heterocyclic group, and the heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom or may contain one or more additional heteroatoms;

- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group;
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group;
 - (17) $-OCOR^k$ wherein R^k represents C1-4 alkyl; or
 - (18) $-OSO_2R^L$ wherein R^L represents C1-4 alkyl,

wherein (14) carbocyclic group, (15) heterocyclic group, and (16) bicyclic carbocyclic or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino group are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-ORf, or (xii) -CO-NRgRh wherein Rf, Rg, and Rh, which may be the same or different, represent a hydrogen atom or C1-4 alkyl, and

R¹⁰ and R¹¹, R¹¹ and R¹², R¹² and R¹³, and R¹³ and R¹⁴ together may combine with the carbon atoms to which they are attached represent a saturated or unsaturated

five- or six-membered carbocyclic or heterocyclic group, and the carbocyclic or heterocyclic group is optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -C0-OR^f, or (xii) -C0-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl,

provided that, when D^1 , D^2 , D^3 , D^4 , X, E, G, J, L, and M represent a nitrogen atom, groups R^2 to R^6 and R^{10} to R^{14} which attach to the nitrogen atom are absent, and

provided that, when all of D^1 , D^2 , D^3 , and D^4 represent a carbon atom,

- I) at least one of R⁴ and R⁵ represents (4) cyano group, (5) nitro group, (12) -CO-OR^c, (13) -CO-NR^dR^e wherein any one of R^d and R^e represents optionally substituted C1-4 alkyl, (14) carbocyclic group, (15) heterocyclic group wherein the heterocyclic group contains at least one substituent, or (16) bicyclic carbocyclic group or heterocyclic group, or
- II) L represents a nitrogen atom, E, G, J, and M represent a carbon atom, R¹⁰ represents a hydrogen atom, and R¹⁴ represents (6) C1-6 alkyl group, (14) carbocyclic group, (15) heterocyclic group, or (16) bicyclic carbocyclic group or heterocyclic group.
- 2. The compound according to claim 1, wherein at least one of D^1 to D^4 represents a nitrogen atom.
- 3. The compound according to claim 1, wherein D^1 represents a nitrogen atom and, at the same time, all of D^2 to D^4 represent a carbon atom.
- 4. The compound according to claim 1, wherein D^2

represents a nitrogen atom and, at the same time, all of D^1 , D^3 , and D^4 represent a carbon atom.

- 5. The compound according to any one of claims 2 to 4, wherein, in the group of formula (a), any one of E, G, J, L, and M represents a nitrogen atom and all the others represent a carbon atom.
- 6. The compound according to any one of claims 2 to 4, wherein L represents a nitrogen atom and E, G, J, and M represent a carbon atom.
- 7. The compound according to any one of claims 2 to 6, wherein

R¹⁰ represents a hydrogen atom, and

 ${\sf R}^{11}$ and ${\sf R}^{12}$ are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.

- 8. The compound according to any one of claims 2 to 7, wherein R¹⁴ represents an optionally substituted saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.
- 9. The compound according to claim 8, wherein R¹⁴ represents an optionally substituted unsaturated six-membered heterocyclic group.
- 10. The compound according to any one of claims 2 to 9, wherein A represents a group of formula (a-1) or (a-2):

$$R^{16}$$
 R^{16}
 R^{17}
 R^{18}
 R^{10}
 R^{11}
 R^{10}
 R^{10}

wherein

R¹⁰ to R¹² are as defined in claim 1, and

R¹⁵ to R¹⁸ and R¹⁹ to R²¹, which may be the same or different, represent (0) a hydrogen atom, (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

- 11. The compound according to claim 10, wherein, in the group of formula (a-1) or (a-2), R¹⁵ to R¹⁸ and R¹⁹ to R²¹ are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.
- 12. The compound according to claim 10 or 11, wherein R¹⁰ represents a hydrogen atom,

 ${\sf R}^{\sf 11}$ and ${\sf R}^{\sf 12}$ are selected from the group consisting of a hydrogen atom and C1-4 alkyl, and

 R^{15} to R^{18} and R^{19} to R^{21} in the group of formula (a-1) or (a-2) are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.

13. The compound according to claim 10 or 11, wherein R¹⁰ represents a hydrogen atom, R¹¹ and R¹² are selected from the group consisting of

a hydrogen atom and C1-4 alkyl, and

all of R^{15} to R^{18} and R^{19} to R^{21} in the group of formula (a-1) or (a-2) represent a hydrogen atom.

- 14. The compound according to claim 12 or 13, wherein Z represents -O-, X represents a carbon atom, and R¹ to R³ and R⁶ represent a hydrogen atom.
- 15. The compound according to any one of claims 2 to 6, wherein

R¹⁰ represents a hydrogen atom, and

R¹¹ and R¹² together combine with the carbon atoms to which they are attached represent a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

- 16. The compound according to claim 15, wherein R¹¹ and R¹² together combine with the carbon atoms to which they are attached represent a unsaturated six-membered carbocyclic or heterocyclic group.
- 17. The compound according to any one of claims 2 to 4, wherein A represents a group of formula (a-3):

$$R^{14}$$
 N N R^{25} R^{24} R^{22} R^{23} (a-3)

wherein

R¹⁴ is as defined in claim 1, and

R²² to R²⁵, which may be the same or different, represent (0) a hydrogen atom, (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl,

(vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO- OR^f , or (xii) -CO- NR^gR^h wherein R^f , R^g , and R^h , which may be the same or different, represent a hydrogen atom or C1-4 alkyl).

- 18. The compound according to claim 17, wherein R²² to R²⁵ in the group of formula (a-3) are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.
- 19. The compound according to claim 17, wherein all of R^{22} to R^{25} in the group of formula (a-3) represent a hydrogen atom.
- 20. The compound according to any one of claims 17 to 19, wherein R¹⁴ represents

optionally substituted C1-4 alkyl,

an optionally substituted saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group, or

an optionally substituted bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group.

- 21. The compound according to claim 20, wherein R¹⁴ represents unsubstituted C1-4 alkyl.
- 22. The compound according to claim 20, wherein R¹⁴ represents an optionally substituted unsaturated six-membered carbocyclic or heterocyclic group.
- 23. The compound according to any one of claims 2 to 22, wherein X represents a carbon atom and both R¹ and R² represent a hydrogen atom.
- 24. The compound according to claim 23, wherein

 $\mbox{$D^1$}$ represents a nitrogen atom and all of $\mbox{$D^2$}$ to $\mbox{$D^4$}$ represent a carbon atom, and

R⁶ represents a hydrogen atom.

25. The compound according to claim 23, wherein D^2 represents a nitrogen atom and all of D^1 , D^3 , and D^4 represent a carbon atom, and

 $\mbox{\ensuremath{R}}^3$ represents a hydrogen atom or a halogen atom, and $\mbox{\ensuremath{R}}^6$ represents a hydrogen atom.

- 26. The compound according to claim 23, wherein all of R^1 , R^2 , R^3 and R^6 represent a hydrogen atom.
- 27. The compound according to any one of claims 2 to 26, wherein R^4 and R^5 , which may be the same or different, represent
 - (1) a hydrogen atom;
 - (2) a halogen atom;
 - (3) hydroxyl;
 - (6) C1-6 alkyl;
 - (9) C1-6 alkoxy;
 - (12) -CO-OR^c;
 - (13) -CO-NR^dR^e;
 - (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
 - (15) a saturated or unsaturated three- to nine-membered heterocyclic group;
 - (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group;
 - (17) -OCOR^k wherein R^k represents C1-4 alkyl; or
 - (18) -OSO₂R^L wherein R^L represents C1-4 alkyl, wherein these groups are optionally substituted as defined in claim 1.
- 28. The compound according to any one of claims 1 to 27, wherein Z represents -O-.

- 29. The compound according to any one of claims 1 to 28, wherein X represents a carbon atom.
- 30. The compound according to claim 1 or a pharmaceutically acceptable salt or solvate thereof, wherein formula (I) is represented by formula (100):

$$R^{104}$$
 R^{104}
 R^{105}
 R^{105}
 R^{104}
 R^{105}
 R^{105}
 R^{105}
 R^{106}
 R^{107}
 R^{108}
 R^{109}
 R^{109}
 R^{109}
 R^{109}
 R^{109}

wherein

Z represents -O-, -NH-, -S-, or -C(=O)-,

any one of D^{11} and D^{12} represents a nitrogen atom, and the other represents a carbon atom,

 ${\sf R}^{103}$ represents a hydrogen atom or a halogen atom, ${\sf R}^{104}$ and ${\sf R}^{105}$, which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (6) C1-6 alkyl;
- (9) C1-6 alkoxy;
- (12) -CO-OR^c;
- (13) -CO-NR^dR^e;
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
 - (16) a bicyclic saturated or unsaturated eight- to

twelve-membered carbocyclic or heterocyclic group,

wherein these groups are optionally substituted as defined in claim 1,

 ${\sf R}^{111}$ and ${\sf R}^{112}$, which may be the same or different, are selected from the group consisting of a hydrogen atom, C1-4 alkyl, and C1-4 alkoxy, and

R¹¹⁴ represents

- (14") a saturated or unsaturated five- or six-membered carbocyclic group;
- (15") a saturated or unsaturated five- or six-membered heterocyclic group; or
- (16") a bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group;

wherein (14") carbocyclic group, (15") heterocyclic group, and (16") bicyclic carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

- 31. The compound according to claim 30, wherein Z represents -O-.
- 32. The compound according to claim 30 or 31, wherein R¹⁰³ represents a hydrogen atom.
- 33. The compound according to any one of claims 30 to 32, wherein

both R¹¹¹ and R¹¹² represent methyl, or

 R^{111} represents a hydrogen atom, and R^{112} represents ethyl.

34. The compound according to any one of claims 30 to 33, wherein R¹¹⁴ represents a group of formula (a-4) or (a-5):

$$R^{16}$$
 R^{16}
 R^{17}
 R^{18}
 R^{20}
 R^{20}
 R^{19}
 R^{19}

wherein

 R^{15} to R^{18} and R^{19} to R^{21} , which may be the same or different, are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.

- 35. The compound according to claim 34, wherein all of R^{15} to R^{18} and R^{19} to R^{21} represent a hydrogen atom.
- 36. The compound according to any one of claims 30 to 35, wherein both R¹⁰⁴ and R¹⁰⁵ represent a hydrogen atom.
- 37. The compound according to claim 1 or a pharmaceutically acceptable salt or solvate thereof, wherein formula (I) is represented by formula (200):

$$R^{204}$$
 R^{205}
 R^{204}
 R^{205}
 R^{205}
 R^{205}
 R^{205}
 R^{206}
 R^{207}
 R^{208}
 R^{209}
 R^{209}
 R^{209}
 R^{209}
 R^{209}
 R^{209}
 R^{209}
 R^{209}

wherein

Z represents -O-, -NH-, -S-, or -C(=O)-,

any one of D^{11} and D^{12} represents a nitrogen atom, and the other represents a carbon atom,

 R^{203} represents a hydrogen atom or a halogen atom, R^{204} and R^{205} , which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (6) C1-6 alkyl;
- (9) C1-6 alkoxy;
- (12) -CO-OR^c;
- (13) -CO-NR^dR^e;
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group, wherein these groups are optionally substituted as defined in claim 1),

 R^{222} to R^{225} , which may be the same or different, are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy, and

R²¹⁴ represents

unsubstituted C1-4 alkyl,

an optionally substituted unsaturated six-membered carbocyclic or heterocyclic group, or

an optionally substituted, bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group.

- 38. The compound according to claim 37, wherein Z represents -O-.
- 39. The compound according to claim 37 or 38, wherein R²⁰³ represents a hydrogen atom.

- 40. The compound according to any one of claims 37 to 39, wherein all of R²²² to R²²⁵ represent a hydrogen atom.
- 41. The compound according to any one of claims 37 to 40, wherein R²¹⁴ represents phenyl.
- 42. The compound according to any one of claims 37 to 40, wherein R²¹⁴ represents methyl or ethyl.
- 43. The compound according to any one of claims 37 to 42, wherein both R²⁰⁴ and R²⁰⁵ represent a hydrogen atom.
- The compound according to claim 1, wherein all of D¹ to D⁴ represent a carbon atom,

 R¹ and R² represent a hydrogen atom, and

 R³ and R⁶, which may be the same or different, represent a hydrogen atom, a halogen atom, or C1-4 alkyl, and

 ${\ensuremath{\mathsf{R}}}^4$ and ${\ensuremath{\mathsf{R}}}^5$, which may be the same or different, represent

- (4) cyano group;
- (5) nitro group;
- (12) -CO-ORc;
- (13) -CO-NR^dR^e;

wherein, in groups (12) and (13), R^c , R^d , and R^e , which may be the same or different, represent a hydrogen atom or C1-4 alkyl, provided that at least one of R^d and R^e represents C1-4 alkyl, and the C1-4 alkyl group is optionally substituted by

- (a) hydroxyl,
- (b) a halogen atom,
- (c) C1-4 alkoxy,
- (d) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom,

or

- (e) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl,
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group,

group, carbocyclic (15)wherein (14)heterocyclic group, and (16) bicyclic carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl, and (15) heterocyclic group contain at least one substituent.

45. The compound according to claim 44, wherein R^4 and R^5 represent

an unsaturated five- or six-membered carbocyclic or heterocyclic group wherein the carbocyclic or heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, a halogen atom, amino group, or hydroxyl, or

a bicyclic unsaturated nine- or ten-membered carbocyclic or heterocyclic group wherein the carbocyclic or heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, a halogen atom, amino group, or hydroxyl.

46. The compound according to claim 44 or 45, wherein L represents a nitrogen atom, and E, G, J, and M represent

a carbon atom.

- 47. The compound according to any one of claims 44 to 46, wherein R¹⁴ represents
 - (6) C1-6 alkyl; wherein the alkyl group is optionally substituted as defined in claim 1,
 - (14") a saturated or unsaturated five- or six-membered carbocyclic group;
 - (15") a saturated or unsaturated five- or six-membered heterocyclic group; or
 - (16") a bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group;

wherein (14") carbocyclic group, (15") heterocyclic group, and (16") bicyclic carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -C0-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

48. The compound according to claim 1 or a pharmaceutically acceptable salt or solvate thereof, wherein formula (I) is represented by formula (300):

wherein

X¹ represents CH or N,

Z represents -O-, -NH-, -S-, or -C(=O)-,

R³⁰³ represents a hydrogen atom, a halogen atom, or C1-4 alkyl,

 ${\rm R}^{\rm 304}$ and ${\rm R}^{\rm 305}$, which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (6) C1-6 alkyl;
- (9) C1-6 alkoxy;
- (12) -CO-OR^c;
- (13) -CO-NR^dR^e;
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group;
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group;
 - (17) -OCOR^k wherein R^k represents C1-4 alkyl; or
- (18) -OSO₂R^L wherein R^L represents C1-4 alkyl, wherein these groups are optionally substituted as defined in claim 1,

at least one of R^{311} and R^{312} represents C1-4 alkyl and the other represents a hydrogen atom or C1-4 alkyl, and

R³¹⁴ represents an unsaturated six-membered heterocyclic group wherein the heterocyclic group is optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

The compound according to claim 48, wherein Z represents -O-,

 R^{303} represents a hydrogen atom, and R^{304} represents

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (9) C1-6 alkoxy;
- (17) -OCOR^k wherein R^k represents C1-4 alkyl; or
- (18) -OSO₂R^L wherein R^L represents C1-4 alkyl, wherein these groups are optionally substituted as defined in claim 1,

 $\mbox{\ensuremath{R^{305}}}$ represents a hydrogen atom, a halogen atom, or -CO-NH2, and

R³¹⁴ represents a group of formula (a-4) or (a-5):

$$R^{15}$$
 R^{16}
 R^{17}
 R^{18}
 R^{20}
 R^{21}
 R^{21}

wherein

 R^{15} to R^{18} and R^{19} to R^{21} , which may be the same or different, are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.

- 50. The compound according to claim 49, wherein R¹⁵ to R¹⁸ and R¹⁹ to R²¹ represent a hydrogen atom.
- 51. The compound according to any one of claims 48 to 50, wherein X¹ represents CH.
- 52. The compound according to any one of claims 48 to

51, wherein R^{305} represents a hydrogen atom, a fluorine atom, or -CO-NH₂.

- 53. The compound according to any one of claims 48 to 52, wherein R³¹¹ and R³¹², which may be the same or different, represent C1-4 alkyl.
- 54. The compound according to claim 53, wherein both R³¹¹ and R³¹² represent methyl.
- 55. The compound according to any one of claims 48 to 52, wherein

R³¹¹ represents a hydrogen atom, and R³¹² represents C1-4 alkyl.

- The compound according to claim 55, wherein R³¹¹ represents a hydrogen atom, and R³¹² represents methyl.
- 57. The compound according to claim 55, wherein R³¹¹ represents a hydrogen atom, and R³¹² represents ethyl.
- 58. The compound according to any one of claims 48 to 57, wherein R³⁰⁴ represents C1-6 alkoxy optionally substituted as defined in claim 1.
- 59. The compound according to claim 58, wherein R³⁰⁴ represents C1-6 alkoxy substituted by hydroxyl.
- 60. The compound according to claim 58, wherein R^{304} represents $-O(CH_2)m1-OH$ wherein m1 is an integer of 2 to 4.
- 61. The compound according to claim 58, wherein R^{304} represents $-OC_2H_5-OH$.

- 62. The compound according to claim 48, which is selected from the group consisting of compounds 181, 188, 192, 200, 202, and 205.
- 63. The compound according to claim 1 or a pharmaceutically acceptable salt or solvate thereof, wherein formula (I) is represented by formula (400):

$$R^{404}$$
 R^{405}
 R^{405}
 R^{405}
 R^{406}
 R^{408}
 R^{408}
 R^{409}
 R^{409}
 R^{409}

wherein

X¹ represents CH or N,

Z represents -O-, -NH-, -S-, or -C(=O)-,

R⁴⁰³ represents a hydrogen atom, a halogen atom, or C1-4 alkyl,

 R^{404} and R^{405} , which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (6) C1-6 alkyl;
- (9) C1-6 alkoxy;
- (12) -CO-ORc;
- (13) -CO-NR^dR^e;
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group;
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group;

- (17) -OCOR^k wherein R^k represents C1-4 alkyl; or
- $(18) OSO_2R^L$ wherein R^L represents C1-4 alkyl, wherein these groups are optionally substituted as defined in claim 1, and R^{414} represents
- (6) C1-6 alkyl; wherein the alkyl group is optionally substituted as defined in claim 1,
- (14") a saturated or unsaturated five- or six-membered carbocyclic group;
- (15") a saturated or unsaturated five- or six-membered heterocyclic group; or
- (16") a bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group;

wherein (14") carbocyclic group, (15") heterocyclic group, and (16") bicyclic carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

The compound according to claim 63, wherein Z represents -O-,

R⁴⁰³ represents a hydrogen atom, and

R⁴¹⁴ represents

an unsaturated five- or six-membered carbocyclic or heterocyclic group wherein the carbocyclic or heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, a halogen atom, amino group, or hydroxyl, or

a bicyclic unsaturated nine- or ten-membered carbocyclic or heterocyclic group wherein the carbocyclic or

heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, a halogen atom, amino group, or hydroxyl.

65. The compound according to claim 63, wherein X^1 represents CH,

Z represents -O-,

R⁴⁰³ represents a hydrogen atom,

any one of R^{404} and R^{405} represents C1-4 alkoxy substituted by hydroxyl, and the other represents unsubstituted C1-4 alkoxy, and

R⁴¹⁴ represents phenyl.

- 66. The compound according to claim 63, which is compound 178.
- 67. The compound according to claim 1, which is selected from the group consisting of compounds 1 to 27, 30, 31, 37 to 70, 73, 74, 81 to 179, and 181 to 225.
- 68. A compound of formula (II) or a pharmaceutically acceptable salt or solvate thereof:

$$R^7$$
 R^8
 Q^1
 X
 R^2
 R^1
 R^9
(II)

wherein

T represents a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group,

wherein group T is optionally substituted by groups (2) to (16):

- (2) a halogen atom;
- (3) hydroxyl;
- (4) cyano group;
- (5) nitro group;

- (6) C1-6 alkyl;
- (7) C2-6 alkenyl;
- (8) C2-6 alkynyl;
- (9) C1-6 alkoxy;
- (10) C1-6 alkylthio;

wherein (6) C1-6 alkyl, (7) C2-6 alkenyl, (8) C2-6 alkynyl, (9) C1-6 alkoxy, and (10) C1-6 alkylthio are optionally substituted by

- (I) hydroxyl,
- (II) a halogen atom,
- (III) C1-4 alkoxy,
- (IV) an oxygen atom,
- (V) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom, or
- (VI) amino group wherein one or two hydrogen atoms in the amino group are optionally substituted by C1-4 alkyl, and the C1-4 alkyl group is optionally substituted by hydroxyl or C1-4 alkoxy,
 - (11) -NR^aR^b;
 - (12) -CO-OR^c;
 - (13) -CO-NR^dR^e;

wherein, in groups (11) to (13), R^a , R^b , R^c , R^d , and R^e , which may be the same or different, represent a hydrogen atom or C1-4 alkyl, and the C1-4 alkyl group is optionally substituted by

- (a) hydroxyl,
- (b) a halogen atom,
- (c) C1-4 alkoxy,
- (d) a saturated or unsaturated threeto nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom, or
- (e) amino group wherein one or two hydrogen atoms in the amino groups are optionally

substituted by C1-4 alkyl, and

R^d and R^e together may combine with the carbon atoms to which they are attached represent a saturated three- to nine-membered heterocyclic group wherein the heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom and may further contain one or more additional heteroatoms;

- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group,

wherein (14) carbocyclic group, (15) heterocyclic group, and (16) bicyclic carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl,

two adjacent substituents on group T together may combine with the carbon atoms to which they are attached saturated or unsaturated fiveа or represent six-membered carbocyclic or heterocyclic group, and the carbocyclic or heterocyclic group is optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl,

 Q^1 and Q^2 , which may be the same or different, represent C, S, O, or N,

X represents C or N,

Z represents -O-, -N(- R^{Z})-, -S-, or -C(=O)- wherein R^{Z} represents a hydrogen atom or unsubstituted C1-4 alkyl,

 R^1 , R^2 , and R^7 to R^9 , which may be the same or different, represent,

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (4) cyano group;
- (5) nitro group;
- (6) C1-6 alkyl;
- (7) C2-6 alkenyl;
- (8) C2-6 alkynyl;
- (9) C1-6 alkoxy;
- (10) C1-6 alkylthio;

wherein (6) C1-6 alkyl, (7) C2-6 alkenyl, (8) C2-6 alkynyl, (9) C1-6 alkoxy, and (10) C1-6 alkylthio are optionally substituted by

- (I) hydroxyl,
- (II) a halogen atom,
- (III) C1-4 alkoxy,
- (IV) an oxygen atom,
- (V) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom, or
- (VI) amino group wherein one or two hydrogen atoms in the amino group are optionally substituted by C1-4 alkyl, and the C1-4 alkyl group is optionally substituted by hydroxyl or C1-4 alkoxy;
 - (11) -NR^aR^b;
 - (12) -CO-OR^c;

(13) -CO-NR^dR^e;

wherein, in groups (11) to (13), R^a, R^b, R^c, R^d, and R^e, which may be the same or different, represent a hydrogen atom or C1-4 alkyl, and C1-4 alkyl is optionally substituted by

- (a) hydroxyl,
- (b) a halogen atom,
- (c) C1-4 alkoxy,
- (d) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom, or
- (e) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, and

R^d and R^e together may combine with the carbon atoms to which they are attached represent a saturated three- to nine-membered heterocyclic group, and the heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom and may contain one or more additional heteroatoms;

- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group,

wherein (14) carbocyclic group, (15) heterocyclic group, and (16) bicyclic carbocyclic or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be

the same or different, represent a hydrogen atom or C1-4 alkyl, and

the five-membered ring part containing Q^1 and Q^2 in formula (II) represents an aromatic ring,

provided that, when X represents a nitrogen atom, R^2 is absent, and

when Q^1 and Q^2 represent an oxygen atom or a sulfur atom, R^7 and R^9 which attach to the oxygen atom or the sulfur atom are absent, and, when both Q^1 and Q^2 represent a nitrogen atom, any one of R^7 and R^9 is absent.

69. The compound according to claim 68, wherein T represents a group of formula (a):

$$R^{14}$$
 R^{13}
 R^{14}
 R^{12}
 R^{12}
 R^{12}
 R^{13}
 R^{14}
 R^{15}
 R^{12}
 R^{15}
 R^{10}
 R^{10}
 R^{10}
 R^{10}

wherein

E, G, J, L, and M, which may be the same or different, represent C or N, and

 ${\sf R}^{\sf 10}$ to ${\sf R}^{\sf 14},$ which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (4) cyano group;
- (5) nitro group;
- (6) C1-6 alkyl;
- (7) C2-6 alkenyl;
- (8) C2-6 alkynyl;
- (9) C1-6 alkoxy;
- (10) C1-6 alkylthio; wherein (6) C1-6 alkyl, (7) C2-6 alkenyl, (8)

C2-6 alkynyl, (9) C1-6 alkoxy, and (10) C1-6 alkylthio are optionally substituted by

- (I) hydroxyl,
- (II) a halogen atom,
- (III) C1-4 alkoxy,
- (IV) an oxygen atom,
- (V) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom, or
- (VI) amino group wherein one or two hydrogen atoms in the amino group are optionally substituted by C1-4 alkyl, and the C1-4 alkyl group is optionally substituted by hydroxyl or C1-4 alkoxy;
 - (11) -NR^aR^b;
 - (12) -CO-ORc;
 - (13) -CO-NR^dR^e;

wherein, in groups (11) to (13), R^a , R^b , R^c , R^d , and R^e , which may be the same or different, represent a hydrogen atom or C1-4 alkyl, and the C1-4 alkyl group is optionally substituted by,

- (a) hydroxyl,
- (b) a halogen atom,
- (c) C1-4 alkoxy,
- (d) a saturated or unsaturated three- to nine-membered carbocyclic or heterocyclic group optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom, or
- (e) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, and

R^d and R^e together may combine with the carbon atoms to which they are attached represent a saturated three- to nine-membered heterocyclic group, and the heterocyclic group is optionally substituted by C1-4 alkyl, C1-4 alkoxy, or a halogen atom and may contain one

or more additional heteroatoms;

- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group;

wherein (14) carbocyclic group, (15) heterocyclic group, and (16) bicyclic carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl, and

R¹⁰ and R¹¹, R¹¹ and R¹², R¹² and R¹³, and R¹³ and R¹⁴ together may combine with the carbon atoms to which they are attached represent a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group, and the carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl,

provided that, when E, G, J, L, and M represent a nitrogen atom, R^{10} to R^{14} which attach to the nitrogen atom are absent.

 Q^1 represents a sulfur atom, and Q^2 represents a carbon atom.

- 71. The compound according to claim 68 or 69, wherein Q^1 represents a carbon atom, and Q^2 represents a sulfur atom.
- 72. The compound according to any one of claims 69 to 71, wherein, in the group of formula (a), any one of E, G, J, L, and M represents a nitrogen atom, and all the others represent a carbon atom.
- 73. The compound according to claim 72, wherein L represents a nitrogen atom, and E, G, J, and M represent a carbon atom.
- 74. The compound according to any one of claims 69 to 73, wherein

R¹⁰ represents a hydrogen atom, and

 ${\sf R}^{11}$ and ${\sf R}^{12}$ are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.

- 75. The compound according to any one of claims 69 to 74, wherein R¹⁴ represents an optionally substituted unsaturated six-membered heterocyclic group.
- 76. The compound according to any one of claims 69 to 75, wherein T represents a group of formula (a-1) or (a-2):

$$R^{16}$$
 R^{16}
 R^{17}
 R^{18}
 R^{10}
 R^{11}
 R^{10}
 R^{10}

wherein

R¹⁰ to R¹² are as defined in claim 69,

 R^{15} to R^{18} and R^{19} to R^{21} , which may be the same or different, represent (0) a hydrogen atom, (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -C0-OR^f, or (xii) -C0-NR^gR^h wherein R^f , R^g , and R^h , which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

- 77. The compound according to claim 76, wherein, in a group of formula (a-1) or (a-2), R¹⁵ to R¹⁸ and R¹⁹ to R²¹ are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.
- 78. The compound according to claim 76, wherein R¹⁰ represents a hydrogen atom,

 R^{11} and R^{12} are selected from the group consisting of a hydrogen atom and C1-4 alkyl, and, in the group of formula (a-1) or (a-2), R^{15} to R^{18} and R^{19} to R^{21} are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.

79. The compound according to claim 76, wherein R¹⁰ represents a hydrogen atom,

 ${\sf R}^{11}$ and ${\sf R}^{12}$ are selected from the group consisting of a hydrogen atom and C1-4 alkyl, and, in the group of

formula (a-1) or (a-2), all of R^{15} to R^{18} and R^{19} to R^{21} represent a hydrogen atom.

The compound according to any one of claims 76 to 79, wherein

R¹⁰ represents a hydrogen atom, and

 R^{11} and R^{12} together combine with the carbon atoms to which they are attached represent a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

- 81. The compound according to claim 80, wherein R¹¹ and R¹² together combine with the carbon atoms to which they are attached represent a unsaturated six-membered carbocyclic or heterocyclic group.
- The compound according to any one of claims 76 to 79, wherein T represents a group of formula (a-3):

$$R^{14}$$
 N R^{25} R^{24} R^{22} R^{23} (a-3)

wherein

R¹⁴ is as defined in claim 69,

R²² to R²⁵, which may be the same or different, represent (0) a hydrogen atom, (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

- 83. The compound according to claim 82, wherein, in the group of formula (a-3), R²² to R²⁵ are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.
- 84. The compound according to claim 82, wherein, in the group of formula (a-3), all of R^{22} to R^{25} represent a hydrogen atom.
- 85. The compound according to any one of claims 82 to 84, wherein R¹⁴ represents

optionally substituted C1-4 alkyl,

an optionally substituted saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group, or

an optionally substituted bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group.

- 86. The compound according to claim 85, wherein R¹⁴ represents unsubstituted C1-4 alkyl.
- 87. The compound according to claim 85, wherein R¹⁴ represents an optionally substituted unsaturated six-membered carbocyclic or heterocyclic group.
- 88. The compound according to any one of claims 68 to 87, wherein X represents a carbon atom and both R¹ and R² represent a hydrogen atom.
- 89. The compound according to any one of claims 68 to 88, wherein Q¹ represents a sulfur atom, Q² represents a carbon atom, and R⁹ represents a hydrogen atom.
- 90. The compound according to any one of claims 68 to

- 88, wherein Q^1 represents a carbon atom, Q^2 represents a sulfur atom, and R^7 represents a hydrogen atom.
- 91. The compound according to any one of claims 68 to 90, wherein both R¹ and R² represent a hydrogen atom.
- 92. The compound according to any one of claims 68 to 91, wherein

 ${\ensuremath{\mathsf{R}}}^7$ to ${\ensuremath{\mathsf{R}}}^9$, which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (6) C1-6 alkyl;
- (9) C1-6 alkoxy;
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group, wherein these groups are optionally substituted as defined in claim 68.
- 93. The compound according to any one of claims 68 to 92, wherein Z represents -O-.
- 94. The compound according to any one of claims 68 to 93, wherein X represents a carbon atom.
- 95. The compound according to claim 68 or a pharmaceutically acceptable salt or solvate thereof, wherein formula (I) is represented by formula (500):

$$R^{514}$$
 N R^{512} R^{511} R^{508} Q^3 X^1 R^{509} (500)

wherein

X¹ reprsents CH or N,

Z represents -O-, -NH-, -S-, or -C(=O)-,

any one of Q^3 and Q^4 represents a sulfur atom, and the other represents a carbon atom,

 \mbox{R}^{507} to $\mbox{R}^{509},$ which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (6) C1-6 alkyl;
- (9) C1-6 alkoxy;
- (12) -CO-ORc;
- (13) -CO-NR^dR^e;
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;
- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group wherein these groups are optionally substituted as defined in claim 68,

 R^{511} and R^{512} , which may be the same or different, are selected from the group consisting of a hydrogen atom and C1-4 alkyl,

R⁵¹⁴ represents

(14") a saturated or unsaturated five- or six-membered carbocyclic group;

- (15") a saturated or unsaturated five- or six-membered heterocyclic group; or
- (16") a bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group;

wherein (14") carbocyclic group, (15") heterocyclic group, and (16") bicyclic carbocyclic group or heterocyclic group are optionally substituted by (i) hydroxyl, (ii) a halogen atom, (iii) cyano group, (iv) nitro group, (v) amino group wherein one or two hydrogen atoms in the amino groups are optionally substituted by C1-4 alkyl, (vi) C1-4 alkyl, (vii) C2-4 alkenyl, (viii) C2-4 alkynyl, (ix) C1-4 alkoxy, (x) C1-4 alkylthio, (xi) -CO-OR^f, or (xii) -CO-NR^gR^h wherein R^f, R^g, and R^h, which may be the same or different, represent a hydrogen atom or C1-4 alkyl.

- 96. The compound according to claim 95, wherein Q^3 represents a sulfur atom, and Q^4 represents a carbon atom.
- 97. The compound according to claim 95, wherein Q^3 represents a carbon atom, and Q^4 represents a sulfur atom.
- 98. The compound according to any one of claims 95 to 97, wherein Z represents -O-.
- 99. The compound according to any one of claims 95 to 98, wherein both R⁵¹¹ and R⁵¹² represent methyl, or R⁵¹¹ represents a hydrogen atom while R⁵¹² represents ethyl.
- 100. The compound according to any one of claims 95 to 99, wherein R⁵¹⁴ represents a group of formula (a-4) or formula (a-5):

$$R^{16}$$
 R^{16}
 R^{17}
 R^{18}
 R^{20}
 R^{21}
 R^{21}

wherein

R¹⁵ to R¹⁸ and R¹⁹ to R²¹, which may be the same or different, are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy.

- 101. The compound according to claim 100, wherein all of R^{15} to R^{18} and R^{19} to R^{21} represent a hydrogen atom.
- 102. The compound according to any one of claims 95 and 98 to 101, wherein

Q³ represents a sulfur atom,

Q⁴ represents a carbon atom,

R⁵⁰⁸ represents

a hydrogen atom,

C1-4 alkyl, or

a saturated or unsaturated six-membered carbocyclic or heterocyclic group,

wherein said carbocyclic or heterocyclic group is optionally substituted by (i) hydroxyl, (ii) a halogen atom, (v') amino group, (vi') C1-2 alkyl, or (ix') C1-2 alkoxy, and R⁵⁰⁹ represents a hydrogen atom.

- 103. The compound according to claim 102, wherein R⁵⁰⁸ represents a hydrogen atom or phenyl.
- 104. The compound according to any one of claims 95 and 98 to 101, wherein

Q³ represents a carbon atom,

Q⁴ represents a sulfur atom, and

 R^{507} and R^{508} are selected from the group consisting of a hydrogen atom and C1-4 alkyl.

- 105. The compound according to claim 104, wherein both R^{507} and R^{508} represent a hydrogen atom or both R^{507} and R^{508} represent methyl or R^{507} represent methyl while R^{508} represents a hydrogen atom.
- or a pharmaceutically acceptable salt or solvate thereof, wherein formula (I) is represented by formula (600):

wherein

X¹ represents CH or N,

Z represents -O-, -NH-, -S-, or -C(=O)-,

any one of Q^3 and Q^4 represents a sulfur atom, and the other represents a carbon atom,

 \mbox{R}^{607} to $\mbox{R}^{609},$ which may be the same or different, represent

- (1) a hydrogen atom;
- (2) a halogen atom;
- (3) hydroxyl;
- (6) C1-6 alkyl;
- (9) C1-6 alkoxy;
- (12) -CO-OR^c;
- (13) -CO-NR^dR^e;
- (14) a saturated or unsaturated three- to nine-membered carbocyclic group;

- (15) a saturated or unsaturated three- to nine-membered heterocyclic group; or
- (16) a bicyclic saturated or unsaturated eight- to twelve-membered carbocyclic or heterocyclic group, wherein these groups are optionally substituted as defined in claim 68,

 R^{622} to R^{625} , which may be the same or different, are selected from the group consisting of a hydrogen atom, a halogen atom, C1-4 alkyl, and C1-4 alkoxy, and

R⁶¹⁴ represents

unsubstituted C1-4 alkyl,

an optionally substituted unsaturated six-membered carbocyclic or heterocyclic group, or

an optionally substituted bicyclic saturated or unsaturated nine- or ten-membered carbocyclic or heterocyclic group.

- 107. The compound according to claim 106, wherein Z represents -O-.
- 108. The compound according to claim 106 or 107, wherein all of R^{622} to R^{625} represent a hydrogen atom.
- 109. The compound according to any one of claims 106 to 108, wherein R⁶¹⁴ represents phenyl.
- 110. The compound according to any one of claims 106 to 108, wherein R⁶¹⁴ represents methyl or ethyl.
- 111. The compound according to any one of claims 106 to 110, wherein

Q³ represents a sulfur atom,

 Q^4 represents a carbon atom,

R⁶⁰⁸ represents

a hydrogen atom,

C1-4 alkyl, or

a saturated or unsaturated six-membered carbocyclic or heterocyclic group,

wherein said carbocyclic or heterocyclic group is optionally substituted by (i) hydroxyl, (ii) a halogen atom, (v') amino group, (vi') C1-2 alkyl, or (ix') C1-2 alkoxy, and R⁶⁰⁹ represents a hydrogen atom.

- The compound according to claim 111, wherein R⁶⁰⁸ represents a hydrogen atom or phenyl.
- 113. The compound according to any one of claims 106 to 110, wherein

Q³ represents a carbon atom,

Q4 represents a sulfur atom, and

 \mbox{R}^{607} and \mbox{R}^{608} are selected from the group consisting of a hydrogen atom and C1-4 alkyl.

- 114. The compound according to claim 113, wherein both R^{607} and R^{608} represent a hydrogen atom or both R^{607} and R^{608} represent methyl or R^{607} represents methyl while R^{608} represents a hydrogen atom.
- 115. The compound according to claim 68, which is selected from the group consisting of compounds 28, 29, 32 to 35, 71, 72, 75 to 78, and 180.
- 116. A pharmaceutical composition, comprising a compound according to any one of claims 1 to 115 or a pharmaceutically acceptable salt or solvate thereof as an active component.
- 117. The pharmaceutical composition according to claim 116, which can be used for the treatment or prevention of diseases for which $TGF\beta$ inhibition is effective therapeutically or prophylactically.

- 118. The pharmaceutical composition according to claim 117, wherein the disease for which $TGF\beta$ inhibition is effective therapeutically or prophylactically is a disease involving organ or tissue fibrosis.
- 119. The pharmaceutical composition according to claim 117, wherein the disease for which TGFβ inhibition is effective therapeutically or prophylactically is chronic renal disease, acute renal disease, hepatic fibrosis, cirrhosis, plumonary fibrosis, scleroderma, wound healing, arthritis, congestive cardiac disease, ulcer, ocular disorder, corneal problem, diabetic nephropathy, peritoneal sclerosis, arteriosclerosis, peritoneal adhesions, or subdermal adhesion.
- 120. The pharmaceutical composition according to claim 117, wherein the disease for which $TGF\beta$ inhibition is effective therapeutically or prophylactically is a malignant tumor.
- 121. The pharmaceutical composition according to claim 116, wherein can be used for ex vivo expansion cells.
- 122. A TGF β inhibitor comprising a compound according to any one of claims 1 to 115 or a pharmaceutically acceptable salt or solvate thereof as an active component.
- 123. A method for treating or preventing a disease for which $\mathsf{TGF}\beta$ inhibition is effective therapeutically or prophylactically, said method comprising the step of administering a therapeutically or prophylactically effective amount of a compound according to any one of claims 1 to 115 or a pharmaceutically acceptable salt or solvate thereof to a patient requiring the treatment or prevention of the disease for which $\mathsf{TGF}\beta$ inhibition is effective

therapeutically or prophylactically.

- 124. The method according to claim 123, wherein the disease for which $TGF\beta$ inhibition is effective therapeutically or prophylactically is a disease involving organ or tissue fibrosis.
- 125. The method according to claim 123, wherein the disease for which $TGF\beta$ inhibition is effective therapeutically or prophylactically is chronic renal disease, acute renal disease, hepatic fibrosis, cirrhosis, plumonary fibrosis, scleroderma, wound healing, arthritis, congestive cardiac disease, ulcer, ocular disorder, corneal problem, diabetic nephropathy, peritoneal sclerosis, arteriosclerosis, peritoneal adhesions, or subdermal adhesion.
- 126. The method according to claim 123, wherein the disease for which $TGF\beta$ inhibition is effective therapeutically or prophylactically is a malignant tumor.
- 127. A method for amplifying cells, comprising the step of adding a compound according to any one of claims 1 to 115 or a pharmaceutically acceptable salt or solvate thereof, in an amount effective for promoting cell growth, to intended cells in vitro to amplify the cells.
- 128. The method according to claim 127, wherein said intended cells are hematopoietic stem cells.
- 129. A method for inhibiting the action of TGF β on cells, comprising the step of applying an effective amount of a compound according to any one of claims 1 to 115 to cells present in vitro or in vivo.
- 130. Use of a compound according to any one of claims 1 to 115, for the manufacture of a medicament used in the

treatment or prevention of diseases for which $TGF\beta$ inhibition is effective therapeutically or prophylactically.

- 131. The use according to claim 130, wherein the disease for which $TGF\beta$ inhibition is effective therapeutically or prophylactically is a disease involving organ or tissue fibrosis.
- The use according to claim 130, wherein the disease for which TGFβ inhibition is effective therapeutically or prophylactically is chronic renal disease, acute renal disease, hepatic fibrosis, cirrhosis, plumonary fibrosis, scleroderma, wound healing, arthritis, congestive cardiac disease, ulcer, ocular disorder, corneal problem, diabetic nephropathy, peritoneal sclerosis, arteriosclerosis, peritoneal adhesions, or subdermal adhesion.
- 133. The use according to claim 130, wherein the disease for which TGF β inhibition is effective therapeutically or prophylactically is a malignant tumor.
- The use of a compound according to any one of claims 1 to 115, for the manufacture of a TGFβ inhibitor.
- 135. The use of a compound according to any one of claims 1 to 115, for the manufacture of a promotor forex vivo expansion cells.